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Discussing why population growth is still ignored or denied

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ABSTRACT

Due to a number of factors outlined in this article, the issue of population growth is excluded from the sustainability discussion. In this article, we explore some of the ethical presumptions that underlie the issues linking population growth and sustainability. Critics argue that action to address population creates social and economic segregation, and portray overpopulation concerns as being “anti-poor,” “anti-developing country,” or even “antihuman.” Yet, de-linking demographic factors from sustainability concerns ignores significant global realities and trends, such as the ecological limits of the Earth, the welfare and long-term livelihood of the most vulnerable groups, future prospects of humanity, as well as the ecosystems that support society.

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1. Introduction

Population growth has been propelled by a number of factors, including developments in medicine since the nineteenth century (e.g. the discovery of antibiotics); relative peace since the Second World War; and more efficient food production propelled by the Green Revolution. Antibiotics have helped to rid humanity in most parts of the world from deadly pandemics such as cholera, plague, and tuberculosis. Today, while infectious diseases such as HIV, Ebola virus, and malaria are not yet overcome, survival chances of individuals suffering these diseases have been largely reduced. Noninfectious wealthy world diseases such as cancer and diabetes may be on the rise, yet due to better medical care, they do not necessarily condemn the patients to death. Better health, peace, and abundant food are all economic development benefits certainly something that we all celebrate.

In the twentieth century, medical and resource constraints have become easier to manage with the Green Revolution which has enabled humans to produce (and throw away) much more food than Malthus could have imagined. In more contemporary writing, Childe (1951) saw population growth as dependent on subsistence, perceiving foragers as severely restricted by a low carrying capacity. The adoption of farming raised the carrying capacity and so made possible a “population explosion” (Netting 1977, p. 13). The economist Ester Boserup (1965) has emphasized that population growth

causes a higher carrying capacity by forcing people to use land more intensively and to adopt technological innovations that make more intensive land use possible.

Yet, the negative side of population growth has also been noted. Thomas Malthus’ (1798) *An Essay on the Principle of Population*, is one of the best-known and most criticized classical texts on population. Malthus postulated that there are certain “checks” on population expansion, emerging “from the difficulty of subsistence,” including struggle for resources, diseases, and starvation. As land and resources are not unlimited, checks of growth must be in place to avoid Malthusian “controls.” The publication of *The Population Bomb* (Ehrlich 1968; for an update see Ehrlich & Ehrlich 2009) and *The Limits of Growth* (published in 1972, for an update see Meadows et al. 2004), linked some Malthusian ideas to the twentieth-century sustainability issues.

The Population Bomb offered a model warning that technology may not be sufficient to curtail the devastating effects of increasing populations. Although they were labeled “extremists” and alarmists at the time (Ehrlich and Ehrlich (2014), today we see that their predictions for environmental damage due to excessive population growth, technological and industrial “innovations” to be right on the pulse of global concerns.

Expanding population can become a threat to humanity itself, as it undermines its own resource

base, ultimately leading to the reassertion of “natural” controls. A well-known anthropologist Gregory Bateson (1972) noted how when faced with challenges of altered natural conditions, we tend to focus on modifying our environment rather than ourselves. Bateson argued that these basic causes of environmental crisis lie in the *combined* action of (a) technological advance, (b) population increase, and (c) conventional (but wrong) ideas about the “nature of man” and his relation to the environment. While technological advance has created unintended but extremely destructive effects on the environment, population increase has exacerbated the challenges. The present way of thinking about the primacy of economic agendas has made the challenge of demographic sustainability even more urgent. As Ehrlich and Ehrlich (2014) have long pointed out, the environmental impact is population *times* consumption, and we cannot ignore either.

During the 1972 United Nations Conference on the Human Environment (the Earth Summit), international agendas integrating population and sustainability were proposed. These international agendas challenged the fundamental fallacy infecting industrial capitalism, that unlimited growth both of population and the economy is possible on a planet of finite resources. As Bateson (1972, p. 497) has observed, the very first requirement for ecological stability is a balance between the rates of birth and death. For better or for worse, we have tampered with the death rate, especially by controlling the major epidemic diseases and the death of infants. Today, there is a growing proportional difference between the number of people on earth (over 7 billion) and the number of nonhumans, especially apex predators left in the wild. While the apex predators are normally checked by environmental constraints, this is not the case for a population of humans. It seems that “the bigger the population, the faster it grows; the more technology we have, the faster the rate of new invention; and the more we believe in our ‘power’ over an enemy environment, the more ‘power’ we seem to have and the more spiteful the environment seems to be” (Bateson 1972, p. 494).

However, recently, it seems that linking population and sustainability have become controversial. Policy documents issued by the United Nation’s Sustainable Development Goals (SDGs) *do not seriously address population issues*. At the UN Conference on Sustainable Development (also called Rio+20) in June 2012, among the problems discussed was a concern with agricultural productivity and efficiency, and the necessity to provide food for a growing population. There was *practically no discussion* about stabilizing and then reducing population, as if concerns

with habitat destruction and biodiversity loss were somehow “unconnected” to it, when in fact they are a key driver. In fact, the focus lay on “sustainable growth,” redefined more inclusively with a special focus on the “bottom billion.” Likewise, the most recent “Degrowth” conference in Leipzig had little discussion of population as a key driver of environmental degradation.

UNEP (2014) takes a somewhat contradictory attitude to population and environment. On the one hand, the report states: “A major driver of the overall increase in raw material extraction and use is population numbers. The world’s, and each country’s, material use is tightly coupled to the number of inhabitants.” On the other hand, the report continues:

“From another perspective, metabolic rates can be seen as the ‘material footprint’.... These metabolic rates are more than one order of magnitude different for different countries.... While global resource use has increased eightfold during the course of the 20th century... average resource use per capita merely doubled.”

Further, the report goes on to suggest that resource use and population may in fact actually be negatively correlated, stating: “It appears that densely populated areas and regions, for the same standard of living and material comfort, need fewer resources per capita [than less densely populated areas]” (UNEP 2014).

Kenneth Smail (2003, 2016) reflects that despite the impossibility of decoupling population from sustainability concerns, the issue of population growth has gained a certain “political charge.” Population growth is shunned in the politically correct academic circles, with critics arguing that we do not have a global overpopulation issue, but a global issue of overpopulation of just the highly privileged and exploitative minority, and that population growth is used as scapegoat by rich over-consuming elites (Fletcher 2014a). In this critique, those who link population to sustainability are branded neo-Malthusian, racist, or misanthropic. While the Northern populations are declining (and consumption still rising), the Southern countries, particularly in sub-Saharan Africa, are still growing in population. The ethical question posed is that the global “North” or “West” should not tell people in the “South” that they should have fewer children, opening a Pandora’s box of potential accusations.

Why is it that population remains an “elephant in the room” we cannot see? As Hulme (2009) has noted, if there is a “safe” level of greenhouse gases to avoid runaway climate change, then “is there not also a desirable world population?” In this article, we shall particularly highlight the tendency to place exclusive

blame for overconsumption, environmental and social ills on the global “North” obscuring the detrimental effects of *global* population growth on the whole of humanity.

2. A war on humans?

In the recent decade population growth has become a decisive issue in sustainability discourse, with debates ranging from ambiguity to open hostility toward “blaming” overpopulation. Polarization into the guilty high-consumption Westerners and poor victims in developing countries (who cannot help having many children and who have a much smaller carbon footprint due to their poverty) certainly play into the hands of those who claim population action, such as sterilization and quotas for child bearing, is “racist” or socially unfair (e.g. White 1994; Hartmann 2004; Robbins 2012; Fletcher et al. 2014). Illustrating this anti-population-control sentiment, White (1994) blames “green politics” in vilifying population growth. In a similar vein, Hartmann (2004, p. 1) has stated:

The greening of hate – blaming environmental degradation on poor populations of color – is once again on the rise, both in the U.S. and overseas. In the U.S., its illogic runs like this: immigrants are the main cause of overpopulation, and overpopulation in turn causes urban sprawl, the destruction of wilderness, pollution, and so forth. Internationally, it draws on narratives that blame expanding populations of peasants and herders for encroaching on pristine nature. In the first instance, the main policy “solution” is immigration restriction; in the second it is coercive conservation, the violent exclusion of local communities from nature preserves. Both varieties of the greening of hate are about policing borders... One does not have to scratch very far beneath the surface to find the links between the green wing of the anti-immigration movement and nativism and white supremacy.

In a similar way, proponents of strict measures protecting biodiversity have been branded elitist and misanthropic (Marvier 2014; Fletcher 2014b). It is difficult to raise a voice in defense of a fast-declining nature when academic circles continue to condone such biased labeling. An illustrative video tellingly titled the “War on humans” is published by the Discovery Institute, which advances “free markets, illuminating public policy, and supporting the theistic foundations of the West.” It argues that any arguments against population growth are militantly *antihuman*:

Should pigs and peas have constitutional rights? The War on Humans is a 31-minute documentary that critiques growing efforts to disparage the value of humans in the name of saving the planet. The

documentary investigates the views of anti-human activists who want to grant legal rights to animals, plants, and “Mother Earth,” and who want to reduce the human population by up to 90%.

A number of e-mails exchanged by social scientists on environmental anthropology listserv (EANTH-L@LISTSERV.UGA.EDU) illustrate a number of arguments presented against linking the issue of demographics to sustainability. A persistent issue is that population is about social and economic equality, and it is exclusively the *rich* exploitative consumers and neoliberal elites that should carry the burden of guilt for the current burden of unsustainability. As Burke (2014) has phrased it, “To illustrate this quite simply: if we were to ‘control’ the population of the wealthiest 5% of the world population, we would reduce resource use by about 25%; if we were to ‘control’ the population of the poorest 5%, the effects on resource use would basically round down to 0.” In a similar vein, Theriault (2014) has noted: “Discussions of ‘overpopulation’ are too often divorced from discussions of consumption and distribution. And, for that reason, focusing attention on addressing birth-rates in places where they remain high can mean distracting attention away from places where consumption rates are highest and where the short-term rewards of planetary-scale ecological destruction accumulate most densely.”

3. Why do people still deny overpopulation?

In practice, many governments actually try to boost their population growth by pro-child policies in order to boost their economic and political advantage over their less populous neighbors (http://www.oecdobserver.org/news/archivestory.php/aid/563/Can_governments_influence_population_growth.html).

In some countries population growth is seen favorably as politicians and economists assume that larger population stimulates economic growth both in terms of markets and consumers (The Economist 2012a, 2012b; Blowfield 2013). Young population provides future assets, paying for the (increasingly longer living) elderly, and stimulates “flourishing” economy. Western and Northern European countries are actually interested in attracting more (cheap) labor, and an endless supply of consumers for expanding markets. Hence high fertility is often celebrated. This may be all that corporate expansionists may want (Assadourian 2013; Washington 2013).

Other supposedly more noble and “enlightened” reasons for not addressing population are the “sacredness” of (human) life. The Western Enlightenment/

individualism tradition coincides with the Christian support of what the Monty Python, the British comedians' mocking song about the Roman Catholics: "Every sperm is sacred. Every sperm is great. If a sperm is wasted, God gets quite irate"¹ (Chapman et al. 2003). Births are influenced by conservative Christian ideas of procreation. Mitt Romney, an American Republican candidate, talked about Europe's "demographic disaster" as he ended his presidential bid in 2008, referring to low European births as the "inevitable product of weakened faith in the creator, failed families, disrespect for the sanctity of human life, and eroded morality" (quoted in The Economist 2012c, p. 34). This missionary fervor, combined with economic rationale, is perhaps one of the reasons why the morality of "saving every life" has spread from missionary countries and particularly America to the rest of the world.

The unprecedented concern for human life is aligned with the interests of the dominant political and corporate elites that find population growth economically profitable. Colonial powers and policy-makers have rejected tribal warfare, traditional human sacrifice, and traditional means of birth control, including abortion and infanticide. Yet many of the tribal, indigenous, and traditional cultures did not extend sympathy to the lives or traditions of their neighbors, let alone people on the other side of the world. While rejecting human sacrifice was part of "traditional way of life" in many societies, as demonstrated in *Anthropology of Cannibalism* (edited by Goldman 1999), many "enlightened" Westerners, generally tolerant toward cultural self-determination, have rejected these traditions on moral grounds. Considering that concern about human rights, women's rights, and indigenous rights, is in no way "traditional," selective concern with rights to procreate seems aligned with the globalized projection of what has been called humanity's "expansionist" project (Rolston III 2012).

Another reason for not wanting to address overpopulation has been the argument that in laying so much blame on population growth, the need for basic human development (and poverty alleviation) is ignored. With the approach of the 1992 Earth Summit in Rio, a vocal coalition of developing countries "insisted on broadening the list of actors that contributed to ecological deterioration beyond the obligatory reference to population growth" (Cohen 2005, p. 23–24). This issue associated with the differences between the "wealthy" North and the "populous" South remains one of the most fiercely argued issues today (e.g. Sachs 2002).

One of the persistent claims is that resource use by marginal communities, those of the "victimized South" is either "relatively benign" or "environmentally innocuous" (Robbins 2012). Those unconcerned with population assume that the global population growth is disconnected from overconsumption in the West. Factors such as the growing middle classes in developing countries, and migration from high to low population and high consumption areas are rarely taken into consideration.

Also, those unconcerned with population assume that as soon as the level of welfare rises, the birth rates will drop, which has proven true, not just in Europe and Japan but in many other developed countries. According to demographic transition theory, it is assumed population starts with stable, equal, and relatively high fertility and death rates. Consequently, as medical technologies become widely available (and particularly significant the availability of antibiotics and vaccinations) as well as improved diet lowers mortality. This raises both the population; and general higher affluence. The key factor is that it results in higher rates of education and women's empowerment (Weeden & Palomba 2012; Weisman 2013).

In the final stages of transition, as birth-control technology develops, with higher educational levels, greater material levels lead to lower fertility. At some stage, the rates of mortality and fertility stabilize. The hypothesis is that these factors will stabilize population size without policy intervention: "Development is the best contraceptive" and it has been argued that we can be complacent that population *growth* will end (Alcott 2015).

This is doubtful. In the many parts of the world the number of women of child-bearing age is disproportionately large, this "population momentum" being likely to outrun fertility decline, overriding even possible large mortality-increasing catastrophes. (Bradshaw & Brook 2014). Smail (2016) has noted regarding the claim that population will stabilize at 9–10 billion in the twenty-first century:

Much of this guarded optimism is based on the assumption – but not the assurance – that certain inferences based on the demographic transition model are empirically justified, particularly the claim that there is a strong positive correlation between increased economic, social, and sexual well-being and steadily decreasing fertility levels. But it is entirely possible that these assumptions and correlations are also "projections rather than predictions."

4. The fallacy of "population is not the problem"

Little attention is given to the fact that the rich and poor have different kinds of environmental impacts

(Cafaro & Crist 2012). While the United States, for example, produces staggering amounts of carbon dioxide that spreads far beyond its borders, Madagascar's population growth has triggered massive deforestation and rapid species extinction (ibid, p.6). Furthermore, although the rich countries have been responsible for causing such grave ecological threats as climate change, the poor countries are rapidly "catching up" as witnessed by "developing" nations such as China, India, and Brazil. Thus, as Cafaro and Crist (2012, p. 6) summarize:

To scrutinize the global North and see only the variable of consumption is to remain blind to that mass that qualifies it. A major factor underlying destructive consumerism is population size: the sheer numbers of consumers around the globe. To propagate the myth that population growth is not itself a problem and to lament, instead, the harmful effects of unsustainable production and consumption bypasses one leading reason that production and consumption are unsustainable.

In short, the destructive reach of the affluent is global, and that of the poor tends to be more localized, involving, deforestation for subsistence agriculture and fuel, or the acceleration of the bushmeat trade, leading to the "empty forest syndrome."²

The argument that "population growth is not a problem" is simplistic, dividing people into the bad (rich, Western) consumers and the innocent (poor, non-Western) bottom class. This division makes any objection to population growth morally charged. Strategies to control population are often *incorrectly* labeled "coercive," referring to draconian measures such as sterilization and quotas for child bearing. In fact, such oversimplification is really "reductio ad absurdum," where environmental impact is divorced from the number of people. After all, as Dietz and O'Neill (2013) point out: "we need smaller footprints, but we also need fewer feet." Simplistic divisions also tend to underplay the growth of middle classes in developing countries and the environmental impact that the increasing population in poor countries (MEA 2005). Simultaneously, polarization between innocent poor and guilty rich serves to make any argument in favor of discussion of population growth potentially politically explosive.

Perhaps even more significantly, a position that population is "not a problem" actually threatens to ignore the needs of the poor themselves. First, disconnecting sustainability from population, critics are forgetting that conservation helps protect fragile environments and their ecosystem services upon which the poor are dependent (MEA 2005) – both

materially, but also in a spiritual and cultural sense. Also, it is often not the "wanted" children that are born into the most impoverished families; in fact having more children puts a further strain on limited resources (Hern 1992; The Economist 2012d). One should consider the forced and early child marriages (39,000 a day), rapes, and more generally the lack of traditional means of contraception (discouraged in the past by, among others, Western missionaries) (Engelman 2010). The case of Memory Banda, a Malawian girl who told her story on TED talk,³ clearly indicates the extent of the problem as well as personalizes the victims of unwanted pregnancies. By some estimates, there are about 215 million women (or couples) who want access to contraception aids but are politically or economically denied it and thus suffer unwanted pregnancies and their dire consequences, not just in developing world (Campbell 2012; Wijkman & Rockström 2012; Weisman 2013).

This separation appears more ideologically derived than real, for it simplistically divides people into the bad (rich, Western) consumers and the innocent (poor non-Western) bottom class. Such division tends to underplay the economic differences within countries, for example, urban poverty in "developed" countries and growth of middle classes in "developing" ones. It also radically ignores ecological limits and ecological reality (Washington 2013). The developing world is now rapidly increasing its use of energy and resources. Indeed, China (which has abandoned its one child policy in 2015) is now the world's largest greenhouse gas emitter (Assadourian 2010).

Similarly, 60% of the world's ecosystem services are degrading or being used unsustainably, according to MEA (2005), the Living Planet Index has dropped by 52% since 1970 (WWF 2014) and *without change* two-thirds of life on Earth may be extinct by 2100 (Raven et al. 2011). This is not just due to the top rich 5%, it is due to the total population and its continued growth both in numbers and in use of resources. The old mantra that the problem is just "in the North" or developed world ignores the fact that the developing world is rapidly increasing its consumption (Washington 2015). Yet the world's planetary boundaries (thresholds) are already exceeded on three levels (climate change, nitrate pollution, and species extinction) and are close to exceeding other thresholds on many other levels (Rockstrom et al. 2009). Civilization cannot afford to stick with a "meme" that population is a nonissue.

Using the arguments for NOT addressing the issue of human population growth has other ethical blinkers. It also ignores ethical questions about the intrinsic

value of nature, the rights of nature, and Earth jurisprudence (Cullinan 2014). It clearly ignores the ethical question of the likely extinction of two-thirds of life by 2100 if we do not change our approach (Raven et al. 2011). It is highly questionable whether our current massive population can be sustained in the long- or even medium-term (Ehrlich & Ehrlich 2014), and whether indeed sustainable development's promises for future generations can be fulfilled *without* stabilizing population (Daly 1996). Daily et al. (1994) argue that an ecologically sustainable population is 1.5–2 billion. In reality, we thus face an “overpopulation” problem that is blocking us reaching any meaningful sustainability. Yet, the negative side of population growth has become an issue rarely discussed in politically correct academic circles. Indeed, like climate change it is strongly denied by much of society (Washington 2013, 2015).

It is questionable whether the objective of balancing the social, economic, and environmental triad is achievable with the present rate of natural degradation (Rees 1992, 2008; Washington 2013, 2015). In this regard, “sustainable development” objectives are empirically questionable in propagating the oxymoronic goal of maintaining economic growth, redistributing wealth, while supposedly simultaneously keeping the health of the ecosystem intact (Goldsmith 1996; Mander & Goldsmith 1996; Spring 2004; Easterly 2006; Washington 2015). Currently, the world has an ecological footprint of 1.6 Earths, but if the entire world were to live at the American standard then we would need 4 Earths (Graff 2010). Clearly this is impossible, given the accelerating environmental crisis the world faces.

5. Bottlenecks and challenges in addressing population

Why is population such a diabolical policy issue? Because it cuts at the heart of the received wisdom of 2 million years of human evolution, where “more” people was always better (Washington 1991). “More” meant we could gather more food, cut down more forest, hunt more animals, defend ourselves better, and ostensibly gather more taxes for the State (though sometimes this can mean even more money needs to be spent). “More people” as a concept until the last 100 years has always been seen as a “good thing” for society. Clearly people love babies, so it goes against the grain to say we should have fewer. Even authors of sustainability classics such as “Cradle to Cradle” (Braungart & McDonough 2008) balk at talking about stabilizing population. It is very hard for us to

understand in our hearts that now “more” is no longer better. Add to this the religious discouragement of birth control methods (e.g. the Catholic Church). Add to that the fundamental desire of governments to have more citizens and greater power (Washington 2015).

Population ecologist Meyerson (see Hartmann et al. 2008) explains:

Conservatives are often against sex education, contraception and abortion and they like growth – both in population and in the economy. Liberals usually support individual human rights above all else and fear the coercion label and therefore avoid discussion of population growth and stabilization. The combination is a tragic stalemate that leads to more population growth.

Crist (2012) points out also that environmentalists and the political Left have both blundered badly in failing to face up to population growth. In 1994 the UN “Cairo” conference stopped talking about “family planning” and instead spoke of “women’s reproductive health.” At that time population became something of a taboo word, as it was portrayed as infringing on “women’s rights” (ironically, the opposition has argued that it is a women’s right to decide how many children she wants and terminate unwanted pregnancies). Funding for family planning then dropped worldwide.

Many have referred to the failed forced sterilization program in India, suggesting (erroneously) that most family planning was coercive (Campbell 2012). In fact, family planning is about giving women the choice as to when to use *their* “right” to have children. In fact, if family planning and contraceptives were made universally available, the evidence is that population growth would stabilize and then start to decline (Engelman 2012). Another problem has been a common (if not universal) trend in feminism and the political Left to argue against population controls by labeling them as coercive (Kolankiewicz & Beck 2001), though this may be starting to change (Weeden & Palomba 2012). Denial is often at its peak before the denial dam bursts, and there are signs that the silence around overpopulation is changing. We can only hope our article will contribute to this.

If we all held nature in *respect* and saw other species as our cousins, we could not ignore the escalating environmental crisis caused by our burgeoning numbers. The reason we can act the way we do is due to the dominance of anthropocentrism within society and academia, a dominance that is highly troubling (Kopnina 2013; Crist & Kopnina 2014). Such extreme anthropocentrism amounts to “human supremacy” (Crist 2012), where nature is just a “thing” to be used. This “human supremacy” colors most of our

thinking. As we speak glowingly of “The Human Planet” and of “the Anthropocene”, it could more correctly be described as an environmental crisis of our making that is causing the sixth mass extinction in the fossil record (Kolbert 2014). Neoliberalism has increased the “reification” of nature, making it just a thing, a resource for human use controlled by the “invisible hand” of the market (Crist 2012).

The insistence on the supposed “benevolence” of human population growth testifies to a double standard. Concerns for human life stands in stark contrast to the relative disregard for the huge areas of rich can vibrant life that is cleared daily for agriculture to satisfy the “livelihoods” of humans. Ethically, justice concerns are still limited to the human species (Kopnina 2014). This desperately needs to change, we need to tap into the “wisdom of the Elders” (Knudtson & Suzuki 1992) and rediscover an ecocentric approach and an “Earth ethics” (Rolston III 2012). If society can widen its “moral circle” (Singer 1981) and compassion to the rest of life, then it would make it so much easier to act on overpopulation.

Thus tackling population growth would go against the grain of capitalist industrialist expansionism and be opposed by the elites on “humanitarian” grounds (Washington 2015). It is a worrisome trend that academics seemed to have bought into this deception. In an interview with *The Ecologist* (Lee 2010), the prominent economist Paul Collier explicitly linked the moral objective of lifting poverty with exploitation of nature. Collier argues that the only ethical responsibility and only rights lie between present human communities and future generations of humans:

Sometimes, in poor societies, it is very important to burn down nature and convert it into more productive assets and hand these on. This is the ethical imperative – that’s what stewardship is. Using natural assets productively, creating more value and passing them on, is how we will reduce poverty.

But in other cases, the same thought experiment will come up with a different answer – the future may say you are proposing to leave us a nasty climate and we will be awash in man-made assets...Once you come from a doctrinal, ideological position that “nature has to be preserved”, it will condemn poor societies to poverty (Collier in Lee 2010).

The critics who see overpopulation as a nonissue (e.g. Ellis 2013; Fletcher et al. 2014) dispute the assumption that dignified and desirable living conditions for the “bottom billion” (Collier in Lee 2010) require that we consent to the continued expansion of fundamentally exploitative and *unsustainable* systems of production, exchange, consumption, and distribution. Yet they offer no alternative.

Often people who say that population is “not a problem” forget our treatment of all other populations – such as essential top predators (Letnic et al. 2012), or even urban “pests” such as rats. In the cases of *all nonhuman populations*, their proximity to humans either in urban or agricultural areas is experienced as a problem. While the urban “pests” are feared to carry diseases that can affect human health, those species that enter agricultural land are blamed for destroying human food (as animals are not aware of no property laws), or eating other animals (especially the ones that humans keep for eating themselves).

We agree that all humans deserve to have equal opportunity for health, well-being, happiness, and basic necessities. And indeed, it is true that the poor consume less than the rich – the problem that both perpetuates this discrepancy and endangers the surrounding environment and other species. Denying a problem of the growing population – whose appetites, material aspirations, and life expectancy have greatly increased in the recent decades – seems detrimental to any long-term objective of achieving sustainability (Washington 2015).

We believe that the question of *both* human overpopulation and overconsumption are key drivers of *unsustainability* and hence must be seriously considered. If we assume that we want *everybody* in this world to live “decent” lives, expansion of wealth will necessarily cause greater pressure on the planet and thus hurt the future generations (Wijkman & Rockström 2012). We believe that addressing population is not a condemnation of the poor or an excusal of the rich. Nor is this a call for coerced population control or a perpetuation of social inequality. Rather, this is a call for recognition that there are many common factors, contributing to global poverty, inequality, and environmental destruction, and that population growth exacerbates all of these. Returning to the practicalities, we stress our belief that population control *should never be coercive*. Environmentalists value *all* life. We propose that humane and non-coercive but nonetheless urgent measures are considered seriously to prevent both social and environmental disaster.

6. Potential solutions

The first step is to accept that we have a problem and we need to abandon denial, and discuss and implement solutions immediately. Engelman (2012) shows that overpopulation *can* be tackled by nine humane (non-coercive) strategies to stabilize population at 8 billion:

- (1) Assure access to contraceptives and family planning.

- (2) Guarantee education through secondary school for all (with particular focus on girls).
- (3) Eradicate gender bias from laws, economic opportunity, health, and culture.
- (4) Offer age-appropriate sexuality education for all.
- (5) End all policies that reward parents financially based on their number of children.
- (6) Integrate teaching about population, environment, and development into all school curricula.
- (7) Put full pricing on environment costs and impacts.
- (8) Adjust to population aging, rather than trying to delay it through government programs aimed at boosting birth rates.
- (9) Convince leaders to commit to ending population growth through the exercise of human rights and human development.

Using such strategies, Iran was able to halve its population growth rate from 1987 to 1994 (Brown 2011). Population Media⁴ continues to successfully educate about such strategies. We could reduce global population to 6 billion by the end of the century and to a sustainable 2–3 billion by the end of the following century (Staples & Cafaro 2012).

In implementing these steps, we need to consider culturally sensitive issues. There might be other cultural factors that are responsible for high fertility in some regions or among certain groups. In some cultures, being rich (and marrying a number of wives) entails having more children as a status symbol. Some groups might actually prefer to have a large number of children, no matter what their socioeconomic status is. In these cases, just “dealing out the contraceptives” might not work, but more culturally sensitive and financially stimulating approaches might work better. A hopeful direction is enlisting help of the reproductive health community and social justice community as well as women’s rights advocates. It still remains a challenge to finding ways to raise the profile of legitimate concerns about population growth per se, while enlisting rather than alienating those most able to be helpful.

It is humans that need nature as the video series of Conservation International shows⁵. We are part of nature, and nature is part of us, there is no need for antagonism, nor did any antagonism between culture and nature exist in most indigenous cultures (Knudtson & Suzuki 1992). But any discussion of balance, harmony, or planetary and human health becomes impossible if proponents of population measures are pejoratively branded as rabid environmentalists, misanthropes, racists, or even betrayers of the human race. Not only is such branding counterproductive but it reduces the very possibility of

finding solutions to ensure a secure future for generations of tomorrow – of humans and nonhumans.

If we do not change our production and consumption models in the global North or “West,” something’s got to give. Certainly, overconsumption needs to be addressed in the West, but overpopulation equally needs to be considered *everywhere*. We need to ask a couple of unpleasant questions. What is easier – taking away the privileges of consumers who are already used to their lifestyle (and seemed to consider possession of a smart phone to be one of their “inalienable rights”) or addressing overpopulation? We believe we have to talk about *both*. We must see all the elephants in the room, and that means that overpopulation can no longer be ignored or denied.

7. Conclusions

The environmental crisis is rapidly accelerating, yet much of society and academia still ignores or denies that a key driver is overpopulation. Reaching any sustainable future requires that we break the denial dam and acknowledge and solve this issue. It is not “antihuman” to discuss this on the contrary it shows the deepest concern for future generations and the life they will lead. Time is running out. Humane and non-coercive strategies exist to stabilize our population swiftly at 8 billion (Engelman 2012). There are many humane and non-coercive strategies that the world can adopt to reduce the growing impact that our numbers are creating. These measures use education (especially of young women), family planning, and access to contraception, and they focus on allowing women to *make their own choice* about how many children they have.

This is something we need to discuss and act on. Population is not the only key problem humanity faces, and we have here only touched on its terrible twin – overconsumption. However, the two are entwined and must be solved concurrently. However, while much of society and academia continue to ignore the key driver of overpopulation, we believe any chance of reaching an ecologically sustainable future is vanishingly small.

Notes

1. <https://www.youtube.com/watch?v=fUspLVStPbk>
2. http://www.cites.org/eng/news/pr/2011/20110610_bushmeat.shtml
3. https://www.ted.com/talks/memory_banda_a_warrior_s_cry_against_child_marriage/transcript
4. www.populationmedia.org
5. <https://www.youtube.com/watch?v=WmVLcj-XXNm>

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